

PHILCO SERVICEMAN

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RADIO · MANUFACTURERS · SERVICE · NEWS

NOVEMBER, 1936



EDITORIAL

Your Chance to Cash In on R. M. S. Publicity

THIS issue of the PHILCO SERVICE-MAN carries two articles of great importance to servicemen who are interested in increasing their business. One of these refers to the value of the R. M. S. name and emblem — sponsored and backed by PHILCO—nationally known and advertised.

A name alone, regardless of how well chosen or impressive-sounding it may be, will not carry any influence with the public or bring in any business, unless associated in the public's mind with some well-known firm name, product or advertiser.

But Radio Manufacturers Service, through broadcasting, PHILCO literature and other forms of advertising, has become connected in the public's mind with PHILCO—and the public knows that more PHILCO sets are in use than any other, consequently a service organization sponsored by PHILCO must be reliable.

To date, PHILCO has done a number of things to let the public know about R. M. S. Many members have cashed in on this by letting their neighborhood know they were THE local member of R. M. S. Some members have not as yet done this and are missing a lot of business.

This month PHILCO offers dealer-members of R. M. S. the finest opportunity yet to present the R. M. S. message to their neighborhood and as a result get a lot of new business.

The R. M. S. Direct-Mail Campaign (opposite), now ready for you, is *your* plan. It is the quickest, most positive, effective yet inexpensive method we know of for you to establish yourself as the local R. M. S. member and get a lot of new business quickly. By using this campaign for quick results and "carrying on" by using R. M. S. signs and literature, you can soon become known as R. M. S. "service headquarters" in your locality.

DEALERS! *Your Opportunity*
to get: **MORE TUBE SALES!**
MORE PARTS SALES!
MORE NEW-SET SALES!

Get in on this . . .

NEW · DIFFERENT · ACTION-GETTING

PHILCO R·M·S DIRECT-MAIL CAMPAIGN

Nothing Like It in the Radio Industry!

A BRAND-NEW PLAN

Here is THE opportunity of the season to put yourself in line for a big increase in tube business, service and repair work AND—best of all—new radio set business—at very low cost and with practically no effort on your part.

Philco has prepared, in collaboration with one of the country's oldest and most experienced direct-mail houses, a hard-hitting, powerful direct-to-the-customer campaign to get service jobs. In addition to the profit from parts and tubes on these jobs, many of the returns are bound to come from new-set prospects who, if properly handled, can be easily sold new receivers.

TWO WELL-TIMED, POWERFUL MAILINGS

This campaign is fully described, illustrated and explained in a specially prepared, attractive portfolio booklet carried by your distributor's salesman. This booklet contains samples of the two unusual direct-mail pieces to be used in the campaign for you. These mailing pieces are decidedly different from anything of their kind ever before produced. Designed to first arouse curiosity, then interest, and finally action, they will "bring home the bacon" for you without fail. We predict a far greater percentage of response from these mailings than is experienced from ordinary mailings.

Once you see these unique, attractive pieces, you will agree you cannot afford NOT to use these to increase your business this season.

NO BOTHERSOME DETAILS TO HANDLE

One of the best features of this campaign is that it involves almost NO EFFORT on your part. All you have to do is to give your distributor's salesman the list of names in your neighborhood to whom you wish the mailings sent. Then forget it until the RESULTS start coming in. All of the addressing, imprinting and mailing is handled for you.

THE COST IS LOW

The cost of the campaign to you is remarkably low, considering the returns that are probable. The total expense to you, including all details of both mailings, is only five cents per name. This even includes the prepaid return cards which go out with the mailings. Truly a small investment that will bring big returns.

AND IT WILL GET TRIPLE RESULTS

Once you see these pieces, you will know why we say they will get results—along three distinctly profitable lines:—Tube Sales, Parts Sales, and New-Set Sales. Probably your cost of making the mailings will be repaid alone by tube sales, and repair parts profits will be "gravy."

But the way to make this campaign pay BIG is to convert ALL the service calls you get from it into NEW-SET SALES. Inasmuch as the mailings do not offer anything "free," the returns will be from live prospects, not chiselers. The majority of these have old sets—and by having your salesman and serviceman work together, many new-set sales can be consummated as a result.

SEE YOUR DISTRIBUTOR *for* DETAILS!

DON'T MISS THIS SEASON'S BIG CHANCE!

Methods of Locating Intermittents Important Aid to Servicemen

RADIO sets having intermittent connections of the type which are difficult to locate are responsible in many cases for making the serviceman's job a thankless one. When you try to fix a radio set for a customer and find there is nothing wrong with the set after a reasonable amount of testing, you will naturally return the set as being O.K. If the customer comes back a few days later and says that the set is no better than it ever was, you are the one to blame. In nine cases out of ten a condition of this kind is caused by an intermittent contact which does not show up readily and which may come and go with expansion and contraction in the receiver.

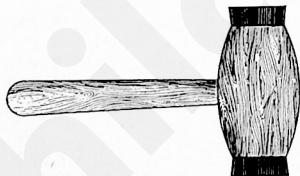
Anything that the serviceman can add to his line of equipment that will assist him in locating such intermittents is most beneficial. During the past few months we have published in the PHILCO SERVICEMAN a number of suggestions of ways to locate such intermittent contacts. We review these items so that you can have the benefit of knowing at this time about the various developments along this line.

Shaker Table

In the October issue of the PHILCO SERVICEMAN we described the shaker table which is used in the PHILCO Service Department for checking sets against intermittents. This tester, which can be constructed from odds and ends around the shop, will prove to be a most valuable aid, particularly in the larger service shops where a number of sets are being serviced every day.

Rubber Mallet

The rubber mallet, which was described on the back page of the September issue of the PHILCO SERVICEMAN, is very helpful in locating intermittents.



Contacts can be caused to be opened or closed semi-permanently by striking the chassis. This mallet, known as PHILCO Part No. 45-2312, sells at a list price of \$1, subject to standard parts discount.

Electric Heater

Many cases of intermittents do not show up until after the set has been in operation for a period of time and the chassis has an opportunity to become thoroughly heated. The heating produces expansion in the wiring, and thus opens or shorts an intermittent contact.

As soon as the set is turned off, contraction takes place and the reverse operation is the result. In some cases the amount of heat developed is not sufficient for the first few minutes to cause the intermittent connection to show itself. The result is that the serviceman will either overlook this condition or it will be necessary for him to keep the set on test for several days. An ordinary reflector-type electric heater can be used to advantage in cases of this kind to show up intermittents quickly. The heater is simply directed at the underside of the chassis and the set is turned on and allowed to play for several minutes. The heat of the reflector sooner or later causes the intermittent to show itself.

A. C. Relays

Some servicemen have used low-resistance A.C. relays connected in the voice-coil circuit of the radio set to assist in the location of intermittents. When the set is playing normally the relay is closed by the current of the voice coil. It is necessary, of course, to use a constant signal from a signal generator rather than broadcast for this type of test. When the intermittent connection makes or breaks, as the case might be, the relay opens and thus closes a switch that will ring a buzzer or bell to notify the serviceman that the set is no longer operating. He can start working on the radio set immediately and will in this way be able to trace through the circuit and thus locate the intermittent.

BOAKE CARTER'S BROADCAST



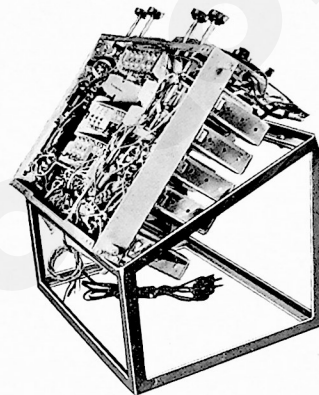
SEPTEMBER
25TH



... provided your set is in proper working order—and the best way to insure that it is—is to get hold of a PHILCO dealer and ask for a Radio Manufacturers Serviceman—and he's a PHILCO-trained expert, by the way—to come and give your set the once-over. Twenty thousand of these men stretch from coast to coast—they are a standing army of reliable, honest, properly PHILCO-trained servicemen, who have a standard set of charges for their work—and do it promptly and well.

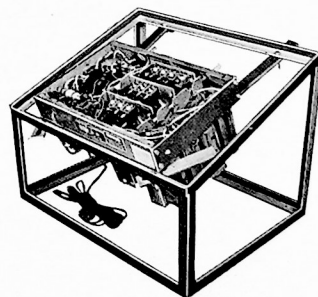
Radio Chassis Rack Announced

THE new chassis rack, which has just been introduced by PHILCO, provides dealers and servicemen with a most convenient arrangement for supporting the various PHILCO chassis for service or display. The chassis rack is designed to take any PHILCO chassis



Showing Large Chassis in Rack

with the exception of the 680 and the early sets such as the Model 15. The illustration on this page will, no doubt, suggest to many alert dealers an interesting window or store display of one of the new '37 PHILCO chassis. It will also show servicemen how this



Showing Small Chassis in Rack

handy arrangement can be used when working on the various sets.

The chassis rack is constructed of heavy angle steel, cadmium plated. Four adjustable arms are provided with wing nuts to support any type of chassis. The chassis rack is known as Part No. 45-2310 and sells at a list price of \$6.00, subject to regular parts discount.

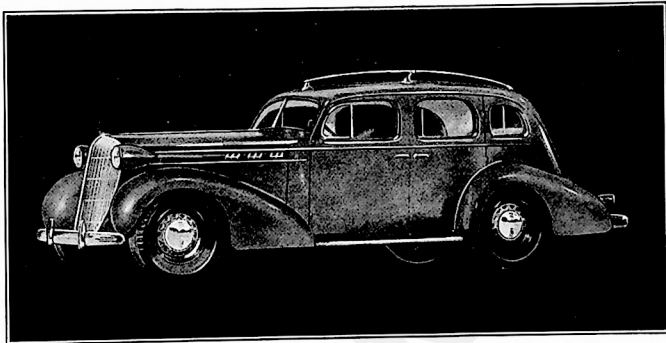
Sensational New Car-Top Aerial Announced

Features Attractive Appearance and Better Reception

PHILCO has just made an announcement which will mean increased profits and improved auto radio performance for servicemen and dealers—a PHILCO Car-Top Auto Radio Aerial designed for use on the top of any type of automobile, beautiful in appearance, efficient in performance, at the low list price of \$5, with full parts discount.

Stainless-Steel Construction

The aerial consists of a solid stainless-steel rod 80 inches long with three attractive insulating supports that are permanently and securely bolted to the roof of the car. The lead-in is brought



The New PHILCO Car-Top Aerial.

down through the front support and across to the corner post, running down the corner post to the radio. The stainless-steel rod is attractive and adds to the appearance of the automobile. The insulating supports are sturdy and are made so that they can be securely mounted on to the car.

Improved Reception

The performance is equal to or better than the best obtained with the under-car aerial, especially since there are never any losses introduced because of ice or other conducting films being formed between the aerial and the car body.

Far less trouble will be experienced from engine noise with this aerial, because it is mounted farther away from the ignition system, and the lead-in wire is kept at a greater distance from the ignition system.

Tire static is eliminated because of the location of the aerial and the lead-in.

This is a quality high-efficiency aerial in every respect, and there is already a tremendous demand for it. Be sure to see the samples at your PHILCO distributor now and place your orders at once.

Philco's Public Endorsement of R. M. S. Your Greatest Aid to Profits

Biggest Service Advertising Campaign Now in Effect

WHEN a serviceman reviews the many benefits which he obtains from his membership in Radio Manufacturers Service there is one outstanding help that overshadows all of the others. This is the fact that the serviceman's work, as a member of Radio Manufacturers Service, has the approval of PHILCO, the largest in the radio industry. This is the strongest endorsement that such work could possibly have, and it will bring you more profits and more business than membership in any radio

club or, in fact, any type of activity that you may engage in for the purpose of getting more jobs.

Biggest Advertising Campaign

Not only does PHILCO endorse the members of R. M. S., but actually goes out and obtains service work for these members. The biggest service advertising campaign that has ever been promoted has been in effect for the past two years and is still going strong. By this we mean the recommendation which is made to the owner of every new PHILCO radio—that when he needs service he should call upon a member of R. M. S. The knob envelope which is packed with every PHILCO radio shipped from the factory recommends R. M. S. members. In addition to the R. M. S. recommendation on the envelope itself, there is also a paragraph in the instruction sheet which tells the customer whom to call upon when in need of service. With nearly 8,000,000 PHILCOS now out and thousands more going out of the factory every day, it is evident that there is and will continue to be a big market for the services of R. M. S. members. Not only does PHILCO advertise the R. M. S. member in this way, but, in addition, Boake Carter, in his confidence-inspiring manner, tells the public to call upon R. M. S. members when in need of service (see page 2). The public *knows* Radio Manufacturers Service.

No Costs for Membership

There are no excessive initiation and membership costs for the privilege of joining Radio Manufacturers Service. In fact, it costs nothing to join—the only requirement being that the serviceman is experienced, capable and that he is properly equipped to do a correct service job. There are no licensing requirements for membership in Radio Manufacturers Service. PHILCO knows that for servicemen to prosper they must do a legitimate service job. Vast experience with the membership of Radio Manufacturers Service has shown that PHILCO is justified in placing such confidence in these men. Radio Manufacturers Service has become the biggest thing in the service industry, because members of that industry realize they are receiving more from such membership than they can possibly get from any other organization.

"A" Battery Reversal Expensive

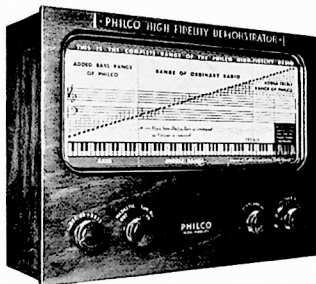
INVESTIGATION of a number of complaints of short life on the PHILCO B/C battery used with the battery sets has shown that customers were operating the set with the "A" battery connections reversed. Almost any battery receiver will have increased sensitivity when the A battery connections are reversed, and many customers will operate the set in this manner, disregarding the instructions. The negative grid bias on the tubes is reduced when the A battery is reversed, and the plate current is thus greatly increased. This additional plate current naturally runs the B/C battery down in a very short time, and it also, in many cases, effects the useful life of the tubes.

Great care should be observed at all times in making certain that the dry batteries are connected to the battery receivers in the proper manner.

Visual Fidelity Demonstrator Announced

Important Sales Aid for High-Fidelity Models

A NOVEL and effective method of presenting the PHILCO high-fidelity story is made possible through the new PHILCO High-Fidelity Demonstrator.



This device, which is now on display at your PHILCO distributor's and which is available to all PHILCO dealers, enables the salesman to tell the story of high fidelity to his prospect in a clear, simple and understandable manner.

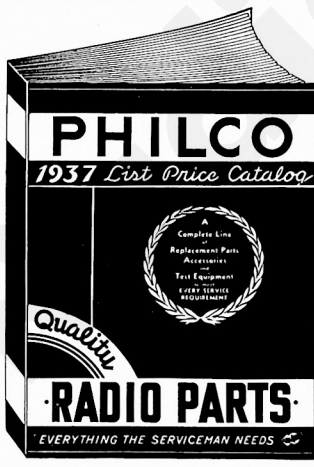
The High-Fidelity Demonstrator is housed in an attractive walnut-finish cabinet that can be placed alongside a 116X or 690X for demonstration purposes. All of the controls which appear on the 116X are duplicated on the front of the High-Fidelity Demonstrator. The semi-transparent scale on the front of the demonstrator is illuminated by a series of small pilot lights connected to the controls in such a manner that the performance of the high-fidelity receiver is shown visually to the customer. As the treble control is turned, increasing treble portions of the musical scale are illuminated. When this control is set for maximum treble the musical scale indicates a range beyond the upper range of the piano. As the bass control is operated, additional light intensity is thrown on to the bass section of the musical scale in the same proportion as the increase in amount of bass when the set is operating. When the volume control is decreased the relative proportion of bass intensity is increased just as happens when the PHILCO high-fidelity sets are played. Sufficient description is given on the scale to enable the customer to understand exactly what is taking place when he operates the various controls. The scale is constructed of semi-transparent material and is printed in red, blue and black to afford a most attractive appearance.

New Philco Parts Catalogue Now Ready

THE new PHILCO parts catalogue is now available and your copy can be obtained from your PHILCO distributor if you have not already received it.

This is the largest parts catalogue PHILCO has ever issued, and you will note there are many new items listed. One of the most important features of the catalogue is the complete listing, in the back, of the major parts for all PHILCO models. The parts catalogue of last year omitted this information, but the new catalogue is more complete than ever in this respect. In addition to the cross-indexing of major parts and models, there is a complete numerical listing in back of the catalogue giving all prices of the various parts in the PHILCO chart. Forty pages, listing the highest-quality and most-reasonably-priced radio parts on the market, await you at your PHILCO distributors.

Be sure to get your copy of the new catalogue while the supply lasts.



There is no radio set or speaker built into the High-Fidelity Demonstrator. It is simply a visual means of showing the customer how PHILCO high-fidelity sets respond to the various controls. The salesman's present difficulty in trying to explain the technical aspects of high fidelity in terms of performance is totally eliminated when the High-Fidelity Demonstrator is used. There is nothing technical about the demonstrator, and it is arranged in such a way that the least technical prospect could easily understand just what takes place.

It is only necessary to plug in the High-Fidelity Demonstrator to the 110-

Questions and Answers

1. Q. What is the result of having too many station tabs placed in the automatic-tuning models?

A. If there are too many station calls on the dial, the eye cannot quickly select the one wanted and the whole advantage of dial tuning—instant selection of a desired station—is defeated.

2. Q. What PHILCO tuning condenser is recommended for connection in parallel with the oscillator condenser when making the high-frequency adjustments on sets of the current PHILCO line?

A. The single gang condenser used in the 088 signal generator is suitable for this purpose. This condenser is known as PHILCO part No. 31-1585 and sells at a list price of \$2. The necessary connections can be made with the use of small battery clips.

3. Q. What can be done to eliminate squeals or "birdies" produced when the receiver is operating in the vicinity of two stations whose frequencies differ by the amount of the I.F.?

A. This condition can be corrected by changing the intermediate frequency to a slightly different value. For example, if there are two stations broadcasting, one on 700 K.C. and another on 1170 K.C., a squeal may be produced on sets having a 470-K.C. I.F. when the sets are operating comparatively near the stations. In a case of this kind, changing the intermediate frequency to 465 K.C. or 475 K.C. will eliminate this trouble. When readjusting the I.F. in this manner it is necessary, of course, to make the corresponding readjustments in the oscillator and R.F. circuits so as to produce the proper intermediate frequency. This I.F. change can also be applied when there is trouble with a "birdie" on a 940-K.C. station.

4. Q. What is the cause of distortion or station interference when magnetic tuning is turned on?

A. This condition is caused by improper adjustment of the discriminator transformer. It is necessary to repad both the primary and secondary of this transformer in accordance with the instructions furnished in the service bulletin.

volt, 60-cycle power supply used for the radio sets. A transformer inside the unit steps down the voltage to the proper operating value for the various pilot lights. The list price of the PHILCO High-Fidelity Demonstrator is \$26, subject to regular parts discount. A complete sales presentation dialogue is given in the instruction sheet.

DEVLIN-DREW COMPANY

718 "F" Street

Fresno, California